

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004621**Date Inspected:** 10-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1430**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Sei Fa / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Shop Components**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector was present during the times noted above for observations relative to the work being performed.

Bay 3 – New Tower Shop**Visual Testing After Repair**

This QA performed Visual Testing (VT) of completed deck panel repairs. The weld repairs were found visually acceptable per Caltrans Engineer Approved Repair Procedure. The deck panel designation number is as follows: DP568-001, DP567-001, DP328-002, and DP436-001.

Visual Testing Before Repair

This QA Inspector performed an initial visual confirmation of the extent of rejectable indications contained in deck panel designated as DP252-001. This visual confirmation was performed in conjunction with ABF representative Kevin Chen and ZPMC representative Sun Bo.

Bay 2 – New Tower Shop

This QA Inspector observed ZPMC welding personnel performing in gantry Flux Core Arc Welding (FCAW) of longitudinal stiffener plate welds on East Lift 2 / Skin A. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector randomly observed ZPMC qualified welding personnel performing groove welding of weld joint WSD1-SA80 filler passes. The personnel were observed welding in the 1G (flat) position utilizing a

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Submerged Arc Welding (SAW) process.

This QA Inspector randomly observed ZPMC qualified welding personnel performing groove welding of weld joint WSD1-SA294A/G-2A filler passes. The personnel were observed welding in the 1G (flat) position utilizing a Submerged Arc Welding (SAW) process.

This QA Inspector randomly observed ZPMC qualified welding personnel performing groove welding of weld joint WSD1-SA225A/H-9B filler passes. The personnel were observed welding in the 1G (flat) position utilizing a Submerged Arc Welding (SAW) process.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of interior corner splice plate welds on ESD1-SA176, WSD1-SA176, ESD1-SA355, and WSD1-SA355. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

Bay 1 – New Tower Shop

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) build up or buttering of longitudinal stiffener plate and skin plate bottom edges on South Shaft / Lift 1 to a thickness of 40mm. In process FCAW not appear to comply with Caltrans Engineer approved buttering procedure which allows 20mm maximum build up.

This QA Inspector randomly observed ZPMC qualified welding personnel performing groove welding of weld joint NSD1-SA17F/G filler passes. The personnel were observed welding in the 1G (flat) position utilizing a Submerged Arc Welding (SAW) process.

This QA Inspector randomly observed ZPMC qualified welding personnel performing groove welding of weld joint WSD1-SA17A/G filler passes. The personnel were observed welding in the 1G (flat) position utilizing a Submerged Arc Welding (SAW) process.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of Complete Joint Penetration (CJP) weld joints connecting longitudinal stiffener plates to skin plate SSD1/Skin A/Lift 2. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

Tracking and Log Book

This QA Inspector reviewed the contract files and tracking logs for the Magnetic Particle Testing (MT), Ultrasonic Testing (UT), Welding Procedure Specifications (WPS), Procedure Qualification Records (PQR), and QC Inspector records for the deck panel repairs to date.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Josh Ishibashi, (858) 232-6799, who represents the Office of Structural Materials for your project.

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Inspected By: Clifford,William

Quality Assurance Inspector

Reviewed By: Cuellar,Robert

QA Reviewer